

CHAPTER 2. PROCEDURES FOR FEDERAL ENDANGERED SPECIES ACT COMPLIANCE FOR THE DESERT TORTOISE

On August 4, 1989, the U.S. Fish and Wildlife Service (USFWS) published an emergency rule listing the Mojave population of the desert tortoise as endangered (54 *Federal Register* 42270). On April 2, 1990, the USFWS determined the Mojave population of the desert tortoise to be threatened (55 *Federal Register* 12178). Recently the Mojave population of the desert tortoise was recognized as a distinct species (Murphy *et al.* 2011) and is referred to as the Mojave desert tortoise (desert tortoise). Section 9 of the Endangered Species Act (ESA) prohibits the "take" of any federally listed threatened or endangered species without first obtaining the necessary take exemption from the USFWS and state permits where applicable. Take is defined as: "harming, harassing, pursuing, hunting, shooting, wounding, killing, capturing, collecting, or attempting to engage in any such conduct" (Section 3(18), ESA). Harm is defined as: "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or shelter" (50 *Code of Federal Regulations* § 17.3(c)). Take also includes modification of habitat that would result in harm to the desert tortoise. There are two ways to legally take a threatened or endangered species; one is through an incidental take statement in a USFWS biological opinion under section 7 of the ESA and the other is through a permit issued by the USFWS under section 10 (refer to Section 2.1.1 for more information on biological opinions and section 2.2 and Chapter 3 for section 10 permits).

For purposes of the ESA, desert tortoise habitat is defined as 1) areas with presence of desert tortoises or desert tortoise sign (*e.g.*, shells, bones, scutes, scats, sheltersites, tracks, egg shell fragments, courtship rings, drinking sites, etc.) that are likely to be part or all of a lifetime home range, 2) dispersal areas (*i.e.*, habitat corridors), or 3) areas suitable for desert tortoises as identified by the USFWS or in the most recent recovery plan for the Mojave desert tortoise (http://www.fws.gov/nevada/desert_tortoise/documents/recovery_plan/RRP%20for%20the%20Mojave%20Desert%20Tortoise%20-%20May%202011.pdf).

Implementing pre-project surveys for the desert tortoise following the USFWS guidance in Chapter 4 are not expected to result in take; therefore, surveyors do not need to obtain a recovery permit. However, to ensure quality control and reduce the likelihood of USFWS non-concurrence with survey results, we recommend that each potential surveyor complete and sign the Desert Tortoise Authorized Biologist Request Form (http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/dt/DT%20authorize%20biologist%20request%20form.pdf) and submit it to USFWS and the appropriate State agency for review prior to initiating any survey. Upon receiving the survey results, if the USFWS determines that the methods implemented or qualifications of the surveyors were inadequate, the USFWS may not accept the survey results. In such cases, surveys would need to be repeated using approved methods and qualified surveyors.

2.1. Federal Actions

2.1.1. Consultation under Section 7 of the ESA

Section 7(a)(1) of the ESA requires all Federal agencies, in consultation with the Secretary of the Interior (this authority has been delegated to the USFWS), to utilize their authorities in furtherance of recovering federally listed species by carrying out programs for the conservation of endangered and threatened species.

Section 7(a)(2) of the ESA and implementing regulations (50 CFR § 402) require all Federal agencies to consult with the USFWS for certain actions. There are two types of consultations, informal and formal. Informal consultation with the USFWS occurs when the Federal agency determines that an action they propose to authorize, fund, or carry out “may affect” a federally endangered or threatened species or critical habitat. Through the informal consultation process, the Federal agency, in coordination with the USFWS, may develop changes to the proposed action that result in no effect to the listed species, only beneficial effects to the listed species, or may affect but is not likely to adversely affect the listed species. In the first two situations, the consultation process is documented by the Federal agency and terminated. In the last situation, the informal consultation process is completed with the USFWS issuing a letter of concurrence.

Section 7(a) regulations of the ESA require each Federal agency to review its actions at the earliest possible time to determine whether any action they propose to authorize, fund, or carry out may adversely affect listed species or designated critical habitat. If such a determination is made, formal consultation is required with the USFWS; please contact the USFWS to determine the type of consultation required.

Through completion of the formal section 7 process, the USFWS may issue a biological opinion to the Federal agency stating “no jeopardy/adverse modification” is expected as a result of the proposed action for listed plants and animals, and exempting incidental take of listed animals (there is no take of listed plants). A no jeopardy/adverse modification biological opinion concludes that the proposed action will not jeopardize the continued existence of the species or result in adverse modification of designated critical habitat. Without this exemption, the Federal agency would violate section 9 of the ESA if the proposed project were implemented and resulted in take of a listed species.

Federal actions that are nondiscretionary, entirely beneficial (with no adverse effects) to the listed species, or have no adverse effects on listed species are not subject to formal consultation. All actions which require approval by the Federal action agency are considered discretionary. The “may affect” standard applies to those activities that occur in suitable habitat, or habitat considered necessary for the conservation of a listed species. It is the responsibility of the Federal action agency to determine which actions may affect threatened or endangered species or critical habitat, and to initiate consultation accordingly with the USFWS.

Once a Federal agency has determined that its action may adversely affect a listed species or critical habitat, the Federal agency should submit a written request to the USFWS for formal consultation. This request should be accompanied by a biological assessment/evaluation of the action and its impacts (Section 2.3).

The Federal agency requesting formal consultation is responsible for providing the USFWS with the best scientific and commercial data available and relevant to the consultation. The “best data” mean data that are available and/or can be obtained during consultation, and are needed for an adequate review of the effects that an action may have on listed species or critical habitat (50 *Code of Federal Regulations* § 402.14(d)).

Should the Federal action agency determine that the effect to the desert tortoise is entirely beneficial, formal consultation would not be required. In this case, the action agency may request concurrence from the USFWS that the action is not likely to adversely affect the desert tortoise through informal consultation. Beneficial actions that are part of a larger action which has not undergone section 7 consultation cannot be considered under informal consultation if the larger action includes adverse effects to the desert tortoise (*e.g.*, construction of a pasture fence within an allotment in desert tortoise habitat which has not yet undergone section 7 consultation). In such instances, grazing within the allotment is considered to be an “interrelated” and “interdependent” action of the proposed fence. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Both interrelated and interdependent actions are considered “effects of the action” (50 *Code of Federal Regulations* § 402.02).

Formal consultation results in a biological opinion issued by the USFWS to the action agency. The biological opinion makes a determination on whether or not the proposed action subject to consultation is likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of critical habitat. The finding takes into account the: 1) rangewide status of the species, 2) the environmental baseline condition of the listed species in the action area; 3) the direct, indirect, interrelated, and interdependent effects attributable to the Federal action at hand; and 4) the cumulative effects of State and private actions reasonably certain to occur in the area of the Federal action.

Biological opinions issued by the USFWS will contain the following information:

1. An assessment of the status of the species, both rangewide and within the action area.
2. An analysis of the direct and indirect effects, as well as the effects of interrelated and interdependent activities (50 *Code of Federal Regulations* § 402) and cumulative effects of future non-Federal activities that are reasonably certain to occur in the action area.
3. A determination whether the action is likely or not likely to jeopardize the continued existence of the species, or will result in the destruction or adverse modification of critical habitat. Reasonable and prudent alternatives will be provided, if at all possible, if the biological opinion indicates that the proposed action is likely to jeopardize the continued existence of the species (jeopardy opinion) or result in the destruction or adverse modification of critical habitat (adverse modification opinion).

4. An incidental take statement that identifies the anticipated level of incidental take that is expected to occur and provides mandatory reasonable and prudent measures and mandatory terms and conditions for minimizing any incidental take exempted in the biological opinion. This includes monitoring and reporting requirements.
5. Conservation recommendations that, if implemented, would minimize impacts and promote the conservation of the species. Conservation recommendations are not mandatory but are intended to provide an opportunity for the agency to further the conservation of the desert tortoise as mandated under section 7(a)(1) of the ESA.

Confusion often arises concerning the difference between reasonable and prudent alternatives and reasonable and prudent measures. “Reasonable and prudent alternatives,” part of a jeopardy or adverse modification opinion, are modifications to the proposed action that will avoid jeopardizing the continued existence of a listed species and/or destroying or adversely modifying the listed species’ critical habitat. The Federal agency decides whether or not to implement reasonable and prudent alternatives. Failure to implement these alternatives, however, can lead to a violation of section 7(a)(2), if the action at any point in time causes a listed species to become jeopardized or results in the destruction or adverse modification of critical habitat. A Federal agency must notify the USFWS of its final decision regarding implementation of reasonable and prudent alternatives. The Federal agency can apply for an ESA exemption if it determines that it cannot comply with the requirements of section 7(a)(2) after consultation with the USFWS.

“Reasonable and prudent measures,” along with terms and conditions that implement them, are mandatory elements that minimize incidental take. Reasonable and prudent measures cannot alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes (50 *Code of Federal Regulations* § 402.14(i)(2)). They include monitoring and reporting requirements. The Federal action agency must comply with the terms and conditions that implement the reasonable and prudent measures, which the USFWS considers necessary to minimize incidental take, to be in compliance with the ESA.

It is not possible to determine an exact point at which the continued existence of a species would be jeopardized or adverse modification of critical habitat would occur without fully analyzing proposed actions in relation to the existing environmental baseline. Therefore, the USFWS will analyze each Federal action submitted for formal consultation on a case-by-case basis.

Formal consultation is initiated on the date the Federal agency’s request is received by the USFWS if the Federal agency provides all relevant data required by 50 *Code of Federal Regulations* § 402.14(c). Within 10 working days, the USFWS will acknowledge receipt of the consultation request in writing. Upon reviewing the biological assessment provided by the Federal action agency, the USFWS will advise the Federal agency if insufficient information has been provided, and request additional information needed to complete the formal consultation process.

Formal consultation concludes within 90 days after its initiation unless suspended because of insufficient information or extended in accordance with 50 *Code of Federal Regulations* § 402.14(e). The USFWS may use an additional 45-day period (total of 135 days) to issue the biological opinion to the Federal agency. The USFWS is responsible for ensuring that biological opinions are prepared and delivered within 135 days of initiation of consultation. The USFWS may request an extension of the consultation period.

When the Federal agency asks to review the draft biological opinion, the above time frames continue to apply. However, no final opinion will be issued before 135 days while the agency is reviewing the draft. Once comments on the draft are received by the USFWS, the biological opinion is finalized and delivered to the Federal agency. If comments on the draft opinion result in major changes or clarifications, a time extension can be sought by the USFWS from the Federal agency.

If relevant data are known to be available to the Federal agency or will be available as a result of ongoing or imminent studies, the USFWS may request the data and any other analyses in accordance with 50 *Code of Federal Regulations* § 402.14(c) or suggest that consultation be postponed until those data or analyses are available. The USFWS has the responsibility to alert the Federal agency (and any applicant) of areas where additional data would provide a better information base from which to formulate a biological opinion. The advice from the USFWS is intended to help the Federal agency to better satisfy its duty to ensure that its proposed action is not likely to jeopardize listed species or adversely modify/destroy critical habitat.

If the Federal agency insists that consultation be completed without the requested data or analyses, the USFWS will document in the biological opinion that certain analyses or data were not provided and why the information would have been helpful in conducting the consultation. In cases where gaps occur in the data base, the USFWS will evaluate the worst-case scenario and provide the benefit of the doubt to the species concerned.

2.1.2. Incidental Take under Section 7 of the ESA

In cases where the USFWS concludes through consultation procedures that an action and the resultant take of listed species is not likely to jeopardize the continued existence of the listed species, the USFWS must provide an incidental take statement that specifies the anticipated level (amount or extent) of such taking and those reasonable and prudent measures considered necessary or appropriate to minimize such impact (50 *Code of Federal Regulations* § 402.14(i)). There are two types of take under the ESA, incidental and intentional. An incidental take situation would exist if an otherwise lawful activity would result in the direct loss of a individual desert tortoise, or a sheltersite with a desert tortoise inside. An example would be the unintentional crushing of a desert tortoise by heavy equipment used for the otherwise lawful purpose of constructing a house. The take of the desert tortoise would be “incidental” to construction of the house. Conversely, intentional take is the purposeful take of a listed species, such as hunting or capturing a listed species. Because the definition of “fish and wildlife” in the ESA includes eggs, the USFWS must also consider incidental take of desert tortoise eggs in a biological opinion, if such take may occur.

In a biological opinion, the USFWS estimates the amount of incidental take for individual desert tortoises and the amount of habitat that may be modified, and provides reasonable and prudent measures and terms and conditions that minimize adverse effects to the listed species. Under section 7(o)(2) of the ESA, a biological opinion with an incidental take statement operates as an exemption to the section 9 prohibitions against take.

Incidental take may also occur when federally listed wildlife are harmed or harassed by activities within their home range. For desert tortoises, harm may include destruction or degradation of habitat components (*e.g.*, soil, vegetation) necessary for the desert tortoise's existence. However, habitat cannot be "taken" in the context of the ESA; only species can be taken. Harassment may occur when a desert tortoise is moved out of the action area to avoid harm. In these situations, the USFWS recommends that the project proponent initiate a dialogue with the USFWS to discuss the likelihood of incidental take.

Any unauthorized take of desert tortoises that results from activities carried out in a manner not consistent with, or not authorized under, the provisions of section 7 of the ESA may be subject to investigation by the USFWS pursuant to section 9 of the ESA. Criminal penalties for illegal take of a threatened species include up to \$25,000 in fines and 6 months in prison. Civil penalties may also be imposed as the ESA has a provision for citizen lawsuits.

2.2. Non-Federal Actions

2.2.1. Conservation Planning under Section 10 of the ESA

A permit from the USFWS pursuant to section 10(a)(1)(B) of the ESA authorizes incidental take for a non-Federal entity much as a section 7 consultation does through an incidental take statement in a biological opinion for a Federal action. Individuals, corporations, non-Federal government entities, State and local governments, Tribes, and other parties can apply for an incidental take permit by submitting an application and a habitat conservation plan (HCP) to the USFWS. "Habitat conservation planning" is the term often used to refer to this process.

Section 10(a)(1)(B) of the ESA requires that the Secretary of the Interior may not issue a permit for incidental take unless the applicant submits a conservation plan. Section 3 of the ESA defines conservation as using all methods and procedures necessary to bring an endangered or threatened species to the point at which measures provided in the ESA are no longer necessary (*i.e.*, recovery). Congress intended that the conservation planning process be used to reduce conflicts between listed species and non-Federal development, and to provide a framework that would encourage creative partnerships between the private sector and local, State, Tribal, and Federal agencies in the interests of listed species and habitat conservation. The existing laws and regulations provide for, and encourage, flexibility and ingenuity in the development of an HCP that will reduce pertinent conflicts under the ESA. The USFWS recommends maximizing efficiency of effort by developing regional HCPs which include incidental take requests from a number of entities through the appropriate local regulatory agency.

The issuance of an incidental take permit by the USFWS is contingent upon the applicant's development of a USFWS-approved HCP for the listed species affected by the project or action. Unlisted species may be included in the process and become covered under the permit if they are listed during the term of the permit. A more detailed document, "Habitat Conservation Planning and Incidental Take Permit Processing Handbook" is available from the USFWS at <http://www.fws.gov/endangered/esa-library/index.html#hcp>.

Upon receipt of the application and HCP, the USFWS may issue an incidental take permit if it determines that the following conditions have been met:

1. The taking will be incidental to an otherwise lawful action;
2. The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of taking;
3. The applicant will ensure that adequate funding will be provided for the conservation plan and changed circumstances;
4. The applicant will provide procedures to deal with unforeseen circumstances;
5. The taking will not appreciably reduce the likelihood of the survival and recovery of the subject species in the wild;
6. The applicant will ensure that other measures required by the USFWS will be provided (e.g., Implementing Agreement); and
7. The plan will be implemented.

The third item above, regarding funding, generally requires development of an implementing agreement. This agreement is a legal document binding all implementing parties to the proposed HCP and their specific responsibilities.

Issuance of an incidental take permit by the USFWS is a Federal action requiring National Environmental Policy Act (NEPA) compliance through preparation of a categorical exclusion, an environmental assessment, or an environmental impact statement. To expedite this process, the USFWS will often delegate the development of information necessary for NEPA documentation to the applicant. Generally, if the incidental take permit will result in a significant net loss of individuals and/or habitat, an environmental impact statement likely will be required. This process often requires 2 years to complete. Conversely, if the permit will result in a net gain or insignificant net loss of individuals and/or habitat, an environmental assessment leading to a finding of no significant impact likely will be sufficient for NEPA compliance. In such a scenario, a permit could be considered for issuance within 1 year. Preparation times for HCP and NEPA documents vary according to the specific circumstances of each proposed action and are therefore difficult to predict.

When the HCP is approved by the USFWS, the section 7 consultation process is initiated on the proposed issuance of an incidental take permit to the applicant. The USFWS prepares and issues a biological opinion on the proposed Federal action to issue a Federal incidental take permit. When issued, the permit would authorize incidental take of listed, or future listed species covered under the permit, provided that the applicant institutes appropriate conservation measures for

habitat maintenance, enhancement, and protection, coincident with development, which are detailed in the HCP.

The USFWS recognizes that completion of measures proposed in an HCP often takes a considerable amount of time. To provide incentives for all parties to participate in the conservation planning process, assurances exist that the terms and conditions of the incidental take permit will be available for the life of the HCP. Permits with a duration of 30 years may be appropriate to provide assurances to the private sector and non-Federal governments that long-term commitments to funding, land use restrictions, and habitat conservation will be maintained. Funding, land use restrictions, and habitat conservation are usually required to continue in perpetuity. Ensuring adequate funding for management of conserved habitat may require establishment of a trust fund.

The USFWS will evaluate all requests for incidental take permits under section 10(a)(1)(B) of the ESA. Permit applicants must submit an official application form (Form 3-200) to the appropriate Regional Director of the USFWS (<http://www.fws.gov/forms/3-200-56.pdf>). ESA permits are issued in accordance with 50 *Code of Federal Regulations* § 13.21.

2.3. Recommended Format for Biological Evaluations/Biological Assessments

The following is provided as a recommended guideline, although information should be presented in the order identified below. As projects vary in complexity, the biological evaluation/biological assessment (BE/BA) may also vary. Development of the BE/BA may not occur in the format order. Rather, as additional information becomes available during the crafting of the BE/BA, the appropriate sections will be modified. Federally funded or permitted exploratory activities that may affect listed species and occur prior to project implementation must also undergo section 7 consultation.

Cover Page: Name of project, location (city, county, etc.), and date.

Table of Contents (all pages must be numbered)

A. Executive Summary

1. Brief summary of project (2 or 3 sentences)
2. In tabular format, identify the species, critical habitat, status, and effects determinations. If “no effect”, include a brief paragraph for each species (these will not be addressed again.) For example:

SPECIES	LISTING STATUS	DETERMINATION
Mojave desert tortoise	Threatened	Likely to adversely affect

Mojave desert tortoise, critical habitat	Designated	Likely to adversely affect
Southwestern willow flycatcher	Endangered	Not likely to adversely affect

B. Project Description

1. Location: Describe construction boundary: mileposts, State, county, and GPS coordinates). Include vicinity map (all maps and photographs must be first generation copies, legible and at a scale to be meaningful to the description of the activity).

2. Definition of Action Area: All areas affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Include all off-site use areas (*e.g.*, access roads, new utility lines, materials sources, waste sites, mitigation sites, stockpiling areas, staging) and locations. A map is helpful, overlaying the entire action area with species and habitat occurrences. Please see Chapter 4 of the USFWS's section 7 handbook for a complete description and examples of the Action Area http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf.

3. Proposed Action:

- a. Describe the anticipated steps involved in the action in their expected or logical order of implementation and include diagrams that are useful. The intent of the proposed action section is to describe what will be built, how it will be built, and when. Include description of actions for the entire action area (including interrelated and interdependent actions (see section 2.1.1)). Describe how the project will be accessed and if ongoing operations and maintenance is anticipated to occur following completion of the construction phase of the project. If the contractor proposes an alternative construction method other than that described in the BE/BA, concurrence from the Services is required.
- b. Identify Best Management Practices (BMPs), weed-control, habitat restoration, and other measures (*i.e.*, work windows, construction techniques, avoidance) designed to minimize adverse effects in this section.
- c. Describe monitoring and reporting plans, as well as conservation bank credits or mitigation sites if applicable.

C. Description of the species and their habitat

Identify each species and each critical habitat. Include the following (repeat for each listed species and listed habitat):

1. Consultation with State wildlife agency and/or Natural Heritage database;
2. Literature reviews;

3. Consultation with experts on species, as necessary;
4. Descriptions of the species and general habitat requirements;
5. Relationship of habitat in the project area to local populations;
6. Map of the project area at an appropriate scale to show vegetation types and important biological features, such as habitat for sensitive species, wetlands or unique plant assemblages;
7. Photographs keyed to locations labeled on the project map;
8. Species information in Action Area including survey protocol used, by whom, etc. Include names of surveyors and a statement of their qualifications or authorizations to conduct the survey; and
9. Identify designated or proposed critical habitat as separate listed entities. List the primary constituent elements and address the extent to which they are found in the action area. These can be introduced in table format and elaborated in subsequent text.

D. Environmental Baseline

Describe the past and present effects of human actions on the species or critical habitat in the action area. Describe existing habitat conditions and species trends in detail. Use watershed analysis from the BLM or Forest Service where available, State wildlife agency, or any other available scientific or commercial databases or information. Include information on climate change (e.g., changes to the species' range, distribution, habitat, etc.).

E. Effects of the Action: Include a discussion of direct and indirect effects relative to the species:

1. Direct Effects - Those effects caused directly by the proposed action (include those based on sideboards). Provide the rationale for each determination;
2. Indirect Effects - Caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur; and
3. Cumulative Effects - Those effects of future State or private activities, not Federal activities, that are reasonably certain to occur within the action area.

F. Determination of Effect

This section must include a clear statement of effect for each species. Example: "We conclude that the Fiber-Optic Line Project may affect, but will not likely adversely affect the Mojave desert tortoise because...."

G. References and Personal Communications Cited

Example of Literature Cited:

Smith, D. M. 2001. Genetic subdivision and speciation in the western North American spotted snake complex, *Thamnophis punctatus*. *Evolution* 4:29-35.

Example of Personal Communications (must be documented):

Leslie Brown, Research Biologist
Smith Nature Center
4125 Willowtree Drive
Greenville, Oregon 97530
January 8, 2009 telephone communication (or email, site visit, etc.)

Literature Cited:

Murphy, R.W., K.H. Berry, T. Edwards, A.E. Leviton, A. Lathrop, and J. D. Riedle. 2011. The dazed and confused identity of Agassiz's land tortoise, *Gopherus agassizii* (Testudines, Testudinidae) with the description of a new species, and its consequences for conservation. *ZooKeys* 113: 39–71.